

(All dates in May unless otherwise specified)

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River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
EAST GULF DRAINAGE—continued					
Illinois:	<i>Feet</i>			<i>Feet</i>	
Peru, Ill.	14	(1)	20	20.3	Apr. 2, 3.
Henry, Ill.	10	(1)	24	15.4	Apr. 4.
Peoria, Ill.	18	(1)	14	21.8	Apr. 5, 6, 9.
Havana, Ill.	14	(1)	(2)	19.6	Apr. 6.
Beardstown, Ill.	14	(1)	(2)	21.2	Apr. 6.
Pearl, Ill.	12	(1)	(2)	21.3	Apr. 29—30.
Meramec:					
Steelville, Mo.	12	7	7	13.4	7.
		2	10	18.1	9.
Pacific, Mo.	11	14	16	15.4	16.
		19	22	13.2	21.
Valley Park, Mo.	14	3	10	20.5	8.
		14	22	21.1	16.
		4	4	12.2	4.
Bourbeuse: Union, Mo.	12	8	8	12.1	8.
		20	21	13.9	21.
St. Francis:					
St. Francis, Ark.	18	8	26	25.2	19.
Marked Tree, Ark.	17	25	(2)	17.5	28, 29.
Missouri:					
Hermann, Mo.	21	14	21	24.2	19.
		3	3	25.2	3.
St. Charles, Mo.	25	14	23	30.3	19.
Smoky Hill:					
Mentor, Kans.	22	12	16	25.4	16.
Salina, Kans.	20			22.6	16.
Osage:					
Osceola, Mo.	20	7	10	22.6	8.
		13	27	30.6	21.
Warsaw, Mo.	22	8	8	23.0	8.
		13	26	34.8	19.
		9	9	25.7	9.
Tusculumbia, Mo.	25	14	28	36.9	22.
Arkansas:					
Webbers Falls, Okla.	23	13	23	28.9	15.
		10	11	22.4	11.
Fort Smith, Ark.	22	13	24	29.7	16.
Ozark, Ark.	22	15	23	24.9	17.
		14	25	26.9	18.
Dardanelle, Ark.	20	28	28	20.0	28.
Morrilton, Ark.	20	15	25	26.6	19.
Little Rock, Ark.	23	18	20	23.3	19.
		24	24	23.0	24.
Pine Bluff, Ark.	25	16	27	27.6	20.
Yancopin, Ark.	20	(1)	(2)	44.8	28-30.
Neosho:					
Neosho Rapids, Kans.	22	13	14	25.7	13.
		7	7	17.3	7.
Oswego, Kans.	17	12	21	22.7	13-14.
		13	15	26.2	14.
Wyandotte, Okla.	23	19	20	23.4	19.
		13	15	27.9	14.
Pensacola, Okla.	24	19	20	26.4	20.
		10	10	22.7	10.
Fort Gibson, Okla.	22	13	22	30.0	15.
Verdigris:					
Independence, Kans.	30	8	8	31.6	8.
		12	15	42.5	13.
Sageeyah, Okla.	35	13	19	39.0	18.
Petit Jean: Danville, Ark.	20	20	21	21.8	20.
White:					
Cotter, Ark.	21	9	9	21.0	9.
Calico Rock, Ark.	18	9	11	24.2	9.
Batesville, Ark.	23	9	16	30.6	10.
Newport, Ark.	26	10	19	29.5	12.
Georgetown, Ark.	22	(1)	31	26.3	17, 18.
		(1)	6	26.2	Apr. 22, 23, 25, 26.
DeValls Bluff, Ark.	24				
		13	20	26.8	May 19—20.
		(1)	4	30.7	Apr. 25—27.
Clarendon, Ark.	30	18	(2)	31.3	May 24, 25.
Black:					
Leeper, Mo.	11	7	7	12.5	7.
Williamsville, Mo.	11	13	7	12.5	7.
		8	11	15.6	14.
Poplar Bluff, Mo.	14	14	17	16.3	9.
		(1)	(2)	17.8	15.
Corning, Ark.	11			13.7	Apr. 16, 17.
		4	31	14.5	May 19.
Black Rock, Ark.	14	(1)	4	22.7	Apr. 11.
		7	(2)	22.3	May 20.
Cache: Patterson, Ark.	9	10	22	10.3	16.
Yazoo: Yazoo City, Miss.	25	(1)	(2)	29.7	1.
		(1)	8	31.7	Mar. 29—Apr. 1.
Tallahatchie: Swan Lake Miss.	25			25.0	May 19-21.
		19	21		
Red:					
Index, Ark.	27	20	22	27.2	21.
Fulton, Ark.	28	19	26	31.1	23.
Sulphur:					
Ringo Crossing, Tex.	20	10	22	24.4	14, 15, 19, 20.
Finley, Tex.	24	17	27	26.4	19.

¹ Continued from last month.
² Continued at end of month.

³ Below flood stage at 8 a. m., May 1.

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
EAST GULF DRAINAGE—continued					
Quachita: Arkadelphia, Ark.....	<i>Feet</i> 12	15	15	<i>Feet</i> 14.1	15.
Atchafalaya:					
Simmesport, La.....	41	(1)	(2)		
Melville, La.....	37	(1)	(2)	43.1	June 9-15.
WEST GULF DRAINAGE					
Neches:					
Rockland, Tex.....	22	{ 16	19	23.3	19.
		{ 28	June 6.	26.8	June 1.
Beemont, Tex.....	7	{ 22	24	7.3	23.
		{ 30	June 12.	13.4	June 2.
Sabine:					
Logansport, La.....	25	June 10.	June 12.	25.2	June 10-11.
Bon Wier, Tex.....	20	June 2.	June 3.	20.2	June 3.
Orange, Tex.....	4	June 2.	June 5.	4.3	June 4.
Trinity:					
Dallas, Tex.....	25	14	(2)	34.5	17.
Trinidad, Tex.....	28	17	(2)	39.6	22.
Long Lake, Tex.....	40	26	June 12.	45.2	June 3.
Riverside, Tex.....	40	31	June 4.	46.2	June 1.
Liberty, Tex.....	25	16	(2)	28.3	June 2.
Trinity, Elm Fork: Carrollton, Tex..	7	13	19	9.3	16.
Brazos:					
Valley Junction, Tex.....	44	30	30	45.3	30.
Washington, Tex.....	45	31	June 5.	51.0	June 1.
Hempstead, Tex.....	40	June 1.	June 5.	43.8	June 2.
Rosenberg, Tex.....	40	June 3.	June 8.	46.2	June 6.
Freeport, Tex.....	4	31	(2)	7.4	June 10.
Colorado:					
Austin, Tex.....	18	28	29	25.6	28.
Smithville, Tex.....	24	29	31	29.4	30.
Columbus, Tex.....	28	29	(2)	37.4	31.
Guadalupe:					
New Braunfels, Tex.....	20	29	30	21.8	29.
		26	26	23.7	26.
Gonzales, Tex.....	22	{ 29	(2)	34.0	29.
		{ 21	21	17.3	21.
Victoria, Tex.....	16	{ 27	(2)	25.7	31.
Nueces:					
Cotulla, Tex.....	15	27	29	16.7	27.
Three Rivers, Tex.....	37	30	(2)	42.0	31.
Rio Grande: San Marcial, N. Mex....	3	9	(2)	4.2	23-25.
PACIFIC DRAINAGE					
Colorado:					
Grand Junction, Colo.....	11	27	27	11.3	27.
Fruita, Colo.....	12	22	28	13.5	27.
Parker, Ariz.....	7	(1)	(2)	11.9	30.
Colorado, Roaring Fork: Carbon-					
dale, Colo.....	5	24	26	5.4	26.
Eagle, Eagle, Colo.....	5	26	26	5.0	26.
		8	11	10.2	10.
Gunnison: Delta, Colo.....	9	{ 14	(2)	11.7	26.
		{ 10	10	9.0	10.
Gunnison, North Fork: Paonia, Colo..	9	{ 15	26	9.5	26.
Green: Elgin, Utah.....	12	26	31	12.9	30.

¹ Continued from last month.

² Continued at end of month.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, MAY, 1929

551.5 : 6.33 (73)
 By J. B. KINCER

General summary.—Due to persistently cool weather and frequent rains, field work became very backward during the first decade over the eastern half of the country, especially in the central valley States. The latter part was rather favorable, which permitted considerable progress in plowing and planting, but at the same time it was too cool for good germination and growth. There was some local frost damage to fruit and the general wetness was rather unfavorable for pollination. In interior sections farm operations were considerably later than usual, but in the Atlantic Coast States active field work was permitted. Temperatures were favorable in the South and rains in the Southwest were beneficial, although there was some damage by excessive falls in parts.

During the second decade like unfavorable conditions prevailed that had previously retarded growth and work and, consequently, outside operations and growth were again delayed. Rainfall was moderate to light in the

Central-Northern States and field work made better progress in this area, although it was still too cool for good growth and germination of spring planted crops. In Atlantic States conditions were again more favorable, but toward the close of the period it was rather too cool for good growth. Further rains were beneficial in western Texas and New Mexico, while warm, sunny weather favored shearing and lambing in the West.

The weather during the last decade was much better than during the preceding ones, although it continued cool in the East the first part of the period; the fair weather favored field work and vegetation responded rapidly to improved soil conditions. In the interior valleys more favorable weather prevailed and the delayed spring planting made rapid advance, though some lowlands continued too wet. Conditions were irregular in the South, with the first part of the decade too cool and wet in the Southeast and similar conditions in the west Gulf area delayed field operations and crop growth. The weather was favorable in the Great Plains. While rains were helpful in the far Southwest, moisture was badly needed in the interior of the Pacific Northwest.

Small grains.—Winter wheat maintained generally good condition in the Ohio Valley during the first decade, except for some yellowing and local deterioration. Progress and condition varied widely in the trans-Mississippi States, but satisfactory advance was made in the Great Plains; growth was poor to only fair in western Oklahoma and Texas, although good in other parts. Heading was reported northward to Maryland in the East and good advance was made elsewhere, except that rain was needed in the Pacific Northwest. During the second decade the weather was unfavorable for best development in the Ohio Valley and it was too cool for good growth in Iowa. Winter wheat continued in very good condition in the Great Plains with the crop heading in south-central and southeastern Kansas. Progress and condition were fair to very good in the Southwest, and elsewhere mostly satisfactory condition was noted.

During the last decade condition and progress of winter wheat were very good in the Ohio Valley, except for some reports of damage on flooded bottom lands. The dry, warm weather in the trans-Mississippi States was of great benefit, and the crop was in fair to excellent condition in the Great Plains. Rains delayed harvest in Texas, but the moisture was of great benefit in New Mexico; satisfactory condition was reported elsewhere, except that parts of the Pacific Northwest were dry.

Progress and condition of spring wheat were very good in the northern part of the belt, with seeding generally completed during the second decade. Coolness and rain were detrimental to oats during the first two decades, but improvement was noted toward the close of the month. Rice needed rain in Louisiana the early part of the month, but late beneficial showers occurred and excellent progress was being made at the close. Flax planting advanced during the month and rye was in mostly satisfactory condition.

Corn.—Continued cool, wet weather caused considerable delay to corn planting during the first two decades, with little work possible and the delay becoming serious in places. The northwestern belt had somewhat more

favorable weather, however, and planting and plowing were rushed whenever possible with considerable time made up, but temperatures were rather too low for good germination. During the last decade the improved weather conditions permitted more active corn planting, and this work was well under way in many of the principal producing sections; considerable lost time was made up, although work was still much behind an average season. In Iowa conditions were mostly favorable and the warmer weather permitted better germination, while in the western belt planting was well advanced.

Cotton.—During the first decade temperatures were rather favorable in the southern portion of the belt, but it was too cool in the north, while heavy rains were unfavorable in many places west of the Mississippi River, especially in northern districts. In the eastern half of the belt the first part was too cloudy and wet, but the latter part was more favorable. Rains were beneficial in Texas, where not excessive, and fair progress was made, although planting and replanting made slow advance. Cool, wet weather delayed germination and growth in Oklahoma, with much to be planted and replanted, while most of Arkansas was also too wet.

The weather continued unfavorable during the second decade, because of too much rain and coolness. Most of the period was rather favorable in Atlantic districts and cotton made fair to fairly good progress in central Gulf sections. In the northwestern belt conditions were decidedly unfavorable, with germination poor and stands irregular; in Texas rains were beneficial in parts, but unfavorable in the east, with chopping and cultivation delayed, although general condition of the crop was fair to good.

Conditions continued rather unfavorable for cotton in the last decade as temperatures in the east were too low for good growth and, although field work made good advance the first part, the latter was too showery, with the crop needing warmth and sunshine. West of the Mississippi River conditions were rather favorable in Arkansas and Louisiana, with progress fair to good, but cool, wet weather in Oklahoma continued detrimental with cotton late, stands poor, and much to be planted and replanted. In Texas rains were of benefit in some southern parts, but it was generally too wet and cold, with planting, replanting, and cultivation at a standstill, and warm, dry weather badly needed.

Miscellaneous crops.—Except for some slow growth, pastures and meadows were generally satisfactory east of the Great Plains and ranges were improving in the northern plains, although there was a local water shortage in Montana at the close. Rains were of benefit in parts of the Southwest, but in the Pacific Northwest ranges were showing the effects of the continued dryness.

Potato planting advanced and the crop generally did well; truck was delayed in some sections by cool weather, but mostly satisfactory condition was reported. Sugar beet seeding was completed with thinning begun in many areas; cane continued excellent advance in Louisiana. Apples dropped badly in parts of the eastern Ohio Valley and Washington toward the close of the month, but otherwise fruits did well rather generally.